

Chapter 2
Review of Literature

CHAPTER — 2

REVIEW OF THE RELATED LITERATURE

2.1. Introduction

Environmental degradation is not something very new, but man has realized it too late. Environmental Education emerged as a result of Man's consciousness about environment protection and conservation. Various studies have been conducted in the area of environmental education since the time education has been realized to be a strong means for bringing about change in behavior and attitude of Man.

2.2. Review of Literature

Yalabik and Fairchild (1984) presented a paper on environment, which is facing increasing threat of irreparable damage, academics, practitioners, and policy-makers are becoming more focused on the incentives of individuals, corporations, and governments to act in the interests of the environment. Since the environment is a public good, private incentives may be misaligned. Hence, game theory provides an ideal tool to examine environmental problems. In this paper, we review the existing game-theoretic approach to the environmental behavior of corporations and governments. We then compare our results with those of Fairchild (1984) duopoly model, and Bagnoli and Watts (1985) oligopoly model. This provides an insight into the inter-relationship between market structure, consumers' environmental preferences, and corporate environmental behavior. Next, we develop a behavioral game theoretic approach to global environmental agreements, in order to determine whether psychological factors, such as empathy, guilt and anger, can mitigate governmental free-riding, and sustain Energy Agreements.

Yadav and Bharti (1987) carried an investigation to study the environmental awareness among higher secondary students of Varanasi district of Utter Pradesh. The findings of the study indicated that environmental awareness has positive relationship with scientific attitude among students and science students were found more aware about their environment as compared to arts students.

Suresh and Kadheravan (1988) studied on a sample of 400 college students to find out the relationship between environmental awareness ability and personality. The findings of this study reveal that environmental awareness ability is affected by demographic variables such as subject of specialization, residential area, parental income and parents' level of education.

Sachdeva (1990) and his team from the Indian Institute of Ecology and Environmental studies conducted a survey through questionnaire. The study includes 250 students aged between 18 and 24 of Delhi University Colleges; IIT Delhi, Jawaharlal Nehru University, Indraprastha University and the All-India Institute of Medical Science. More than 50% of the respondents were found to be largely aware of environmental issues but were found wanting on issues concerning the cause. The study concluded that today's youth should be made aware of the hazards of environmental loss and recommended making environmental studies a must in educational institution.

Peer, Sara, Goldman, Daphne, Yavetz and Bela (1993) the authors report the environmental attitudes and knowledge of 765 1st year. Students in teacher-training colleges in Israel and examine the relationship between these variables and background factors and their relationship to environmental behavior. The authors found a positive relationship between the environmental knowledge and environmental attitudes of the students and the level of their mothers' education.

Sahay (1995) presented a paper on sustainability to be a major concern, and India is no exception. The Indian environmental management system today clearly reflects this global concern. Global economic forces have impacted environmental management in India on many fronts, such as pollution control, preservation and promotion of ecology, environmental legislation, multilateral environmental agreements, social pressures and legal actions.

Abraham and Arjunan (1996) carried on an investigation which was undertaken to study the pro-environmental behavior of secondary school children in relation to their environmental knowledge. The data were collected from a sample of 624 secondary school students by using the pro- environmental behavior scale and the environmental knowledge test.

Saba (1999) made an attempt to see the effect of academic discipline, Gender, Intelligence and Socio-Economic status on environmental awareness of pupils. The research study was conducted on 400 students out of which 200 were girls and 200 were boys. It is evident from the result that academic discipline has a long effect on environmental awareness if pupils.

Sahoo (2000) conducted a study on measuring the effects of different components of environmental awareness (viz air pollution, water pollution, health and nutrition, growth and total ecosystem) and to establish a relationship between scientific attitude and environmental awareness of +2 students of Rajasthan. Bradley, Waliczek and Zajicek (1999), conducted a study on high school students. Environmental knowledge and attitudes were assessed from a questionnaire administered before and after exposure to a 10-day environmental science course. Results indicated significant differences in both knowledge gain and attitudes of students after exposure.

Prateek and Sidana (2000) investigated interest towards Environmental Education among Senior Secondary students. They compared the interest of urban and rural as well as boy versus girl student towards environmental education. An inventory of environmental awareness developed by the investigator was administered among the sample of 1000 students which include 500 boys from rural and 500 girls from urban areas.

Filho (2001) published a paper on the usefulness of multimedia for environmental learning. This paper discussed the relationship between multimedia materials and environmental learning in European Context. Their usefulness for environmental education was also shielded. It outlined the advantages of the use of multimedia materials, as well as the, limitations seen in the utilization for environmental education, purposes, providing examples of some initiatives being undertaken in this field, which might also be of interest in developing countries.

Tarrant and Cordell (2005) conducted five different environmental attitude scales were regressed on an 11-item self-reported general environmental behavior index derived from a confirmatory factor analysis. Correlations between each of the 5 attitude scales and the behavioral index were computed and a Fisher's Z transformation was used to test for the effect of six respondent characteristics.

Ndijiyako (2009) studied assessment and comparison of environmental knowledge and attitudes held by thirteenth grade general and technical education students in the Republic of Burundi, to produce base line data about 13th grade student's environmental knowledge and attitude towards the environment for the general and technical education in Burundi and to study the relationships of attitudes and knowledge to selected independent variables.

Angel (2010) examined the effects of community activism on the environmental attitudes of residents affected by waste-water pollution in Puerto-Rico. This study revealed that residents of the site gave the poorest rating of stream water quality and perceived a greater impact from waste water pollution on the community. The greatest difference, was found in science and technology dimensions and least on the resource. A gender difference among various group members was also found. While a pattern of gender difference seems to exist, the differences were small and vary from group to group.

Naiyana (2011) conducted a study environmental perceptions and attitudes of selected university students in Thailand, in order to investigate environmental perceptions and attitudes of Thai University students and factors influencing them. A total of 2,257 students in the faculties of Agriculture, Education and- Engineering responded to the Likert type questionnaire and final results revealed that students considered environmental problems less important than problems related to economics, social issues, education and politics.

Saudabeh (2014) studied on a sample of 314 sixth grade students including both male and females. A ten-item questionnaire was administered to them. Results indicated a significant change in students' attitude particularly those of boys following' outdoor experiences.

David (2015) worked out a comparative study on interests in Science and Environmental Education, and their implication for instruction. This study identified that middle school grades showed average interests in health and human welfare, whereas higher grades showed uniformity good interests, in higher school grades the boys showed interest in earth Science but girls were found disinterested. All age groups showed interest in experimental education.

Maghenda, Wughanga and Marianne (2016) studied education about environmental issues, conservation and management. A study from four secondary school students concerned about environmental issues in Kenya, develop and administer a questionnaire designed to determine Kenyan students concern about environmental factors facing the country and utilize the findings of the study to develop a conceptual frame work for environmental education in Kenya.

Sandman (2017) investigated Mass Environmental Education. He tried to answer the question, can the Media do “the Job?” The study discussed the role of Mass Media in relation to public education (imparting knowledge skills and motivation). He pointed out that the effectiveness of Mass Media on Environmental Education is greatly affected by their attention to environmental skills, and their delivery of persuasiveness content.